



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/711,684

09/30/2004

Christoph Lemm

2256.0

5683

9748

7590

10/20/2005

LAITRAM, L.L.C.
LEGAL DEPARTMENT
220 LAITRAM LANE
HARAHAN, LA 70123

EXAMINER

DEUBLE, MARK A

ART UNIT

PAPER NUMBER

3651

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,684

Applicant(s)

LEMM, CHRISTOPH

Examiner

Mark A. Deuble

Art Unit

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-17 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-5, 8-17, 25, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 19-24 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5 and 8-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, claims 1, 14, and 28 state that the rollers of the roller-top conveyor belt can be rotated to divert a conveyed article toward the first or second side of the belt, however, no means for rotating the rollers to urge a conveyed article is shown or disclosed. It appears from the drawing and the specification that the rollers are merely passive rollers and not driven rollers as would be required for the rollers to divert the conveyed article to one side or the other of the conveyor.

While the examiner agrees with applicant's remarks that the rollers enable articles to move sidewise more easily than if the belt had no rollers, the rejection under 35 U.S.C. 112 must be maintained because the language of the claims suggests that the rollers cause the article to be diverted when they are rotated rather than merely enabling the article to be diverted more easily than if the belt had no rollers. It is the guide that diverts the articles, not the rollers as the language of the claims suggests.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre et al. (U.S. Patent No. 6,148,990) in view of Bonnet (U.S. Patent No. 5,988,356).

Lapeyre et al. shows in Figs. 4-6 a roller-top conveyor belt extending in width laterally from a first side to a second side and traveling in the conveying direction. This conveyor has a plurality of cylindrical rollers 48 mounted on axles 84 extending in the conveying direction so that the rollers having salient portions protruding outward from an outer surface of the belt to support a conveyed article. The rollers are capable of being rotated about their axes to allow an article to be urged toward a first or second side of the conveyor belt. While Lapeyre et al. does not include a sorting station as required by the present invention, it does suggest that the conveyor belt may advantageously be used to allow articles to be pushed off the side of the conveyor belt with a minimum of friction (col. 1, ln. 29-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conveyor of Lapeyre et al. with a sorting station. Bonnet shows such a sorting station for diverting articles on a conveyor belt 26 which may advantageously be placed into a variety of positions. The sorting station includes a linear elongate guide formed by a conveyor belt 62 that extends in length from a first end to a second end above the outer surface of the conveyor to form a generally vertical wall. The guide is selectively positioned by a pair of linear drives 44 and 50 into a variety of

Art Unit: 3651

positions. These positions would include into a first position traversing the width of the conveyor to intercept a conveyed article and guide it off a first or second side of the belt, a second position not intercepting a conveyed article to allow it to continue to advance in the conveying direction, a third position intercepting a conveyed article and guiding it to an opposite side of the belt from a first position, and a fourth position opposite the second in which the guide does not intercept a conveyed article. Furthermore, in moving between the first and third positions, the guide would move between a first angle oblique to the conveying direction and a second angle mirroring the first angle about the centerline of the belt so that the guide has been rotated about its midpoint. The first linear drive 50 is disposed at a first location defining a lateral track 52 below the conveyor belt transversing the conveyor belt. A first end 48 of the guide is attached to an arm 56 that is selectively driven along the track to move the guide between first and second positions at opposite side of the belt. The second linear drive 44 is disposed at a second location upstream of the first and defining a lateral track 46 below the conveyor belt transversing the conveyor belt. A second end 42 of the guide is attached to an arm 60 that is selectively driven along the track to move the guide between first and second positions at opposite side of the belt. In order to allow the length of the guide to change, it includes an elastic element 76 extending from the first end to the second end of the elongated guide. The position of the guide is determined by a controller 96 that receives a signal from a sensor 36 disposed along the conveying line to sense a characteristic of a conveyed article at a position along the conveying line upstream of the sorting station. The controller controls the drives of the guide means to adjust the orientation of the guide member as a function of the signal associated

with a conveyed article. When the conveyor of Lapeyre et al. is provided with the diverter of Bonnet, it would have all the structure required by claims 27-28.

In regard to the added limitation of claim 27 that the drive be disposed above the upper surface of the belt, it should be noted that while the bulk of the drive mechanism is located below the belt, the portion of the drive that attaches to the guide is above the belt is disposed above the upper surface of the belt. Thus it may be said that the drive is disposed above the upper surface of the belt as required by the claim.

5. Claims 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre et al. (U.S. Patent No. 6,148,990) in view of Carpenter (U.S. Patent No. 1,532,228).

Lapeyre et al. shows in Figs. 4-6 a roller-top conveyor belt extending in width laterally from a first side to a second side and traveling in the conveying direction. This conveyor has a plurality of cylindrical rollers 48 mounted on axles 84 extending in the conveying direction so that the rollers having salient portions protruding outward from an outer surface of the belt to support a conveyed article. The rollers are capable of being rotated about their axes to allow an article to be urged toward a first or second side of the conveyor belt. While Lapeyre et al. does not include a sorting station as required by the present invention, it does suggest that the conveyor belt may advantageously be used to allow articles to be pushed off the side of the conveyor belt with a minimum of friction (col. 1, ln. 29-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conveyor of Lapeyre et al. with a sorting station. Carpenter shows such a sorting station which advantageously employs a linear elongate guide 6. The guide extends in length from a first end to a second end above the outer surface of the conveyor to form a generally vertical wall. The

Art Unit: 3651

guide is selectively positioned by a drive 8 into a first position traversing the width of the conveyor to intercept a conveyed article and guide it off a first or second side of the belt, a second position not intercepting a conveyed article to allow it to continue to advance in the conveying direction. The drive acts a lift connected to the guide for lifting the guide above the upper surface of the belt into a non-blocking orientation and lowering the guide into a blocking orientation as the guide moves between the first and second positions. When the conveyor of Lapeyre et al. is provided with the diverter of Carpenter it would have all the structure required by claims 17 and 25.

In regard to the added limitations of claim 17 that the elongated guide includes roller wheels having low-friction surfaces extending from the wall and rotatable about vertical axes to engage a conveyed article in low-friction rolling contact, it should be noted that Lapeyre et al. teaches that rollers may be used to provide low friction rolling contact with conveyed articles to avoid damaging the articles as they move relative to the belt. This teaching of the use of rollers is equally applicable to the guide of Carpenter as it is to the belt of Lapeyre et al. and therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide rollers on vertical axes on the guide of Carpenter.

Allowable Subject Matter

6. Claims 19-24 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

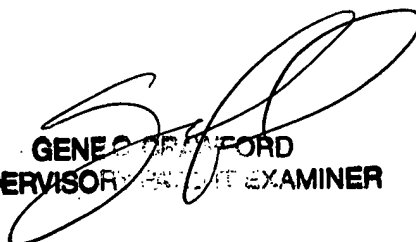
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Deuble whose telephone number is (571) 272-6912. The examiner can normally be reached on Monday through Friday except for alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

md


GENE D. CRAWFORD
SUPERVISOR, PATENT EXAMINER